

Taking Scientists to the Problem and
Science to the People:
The ORT Experience and Teaching
Global Health

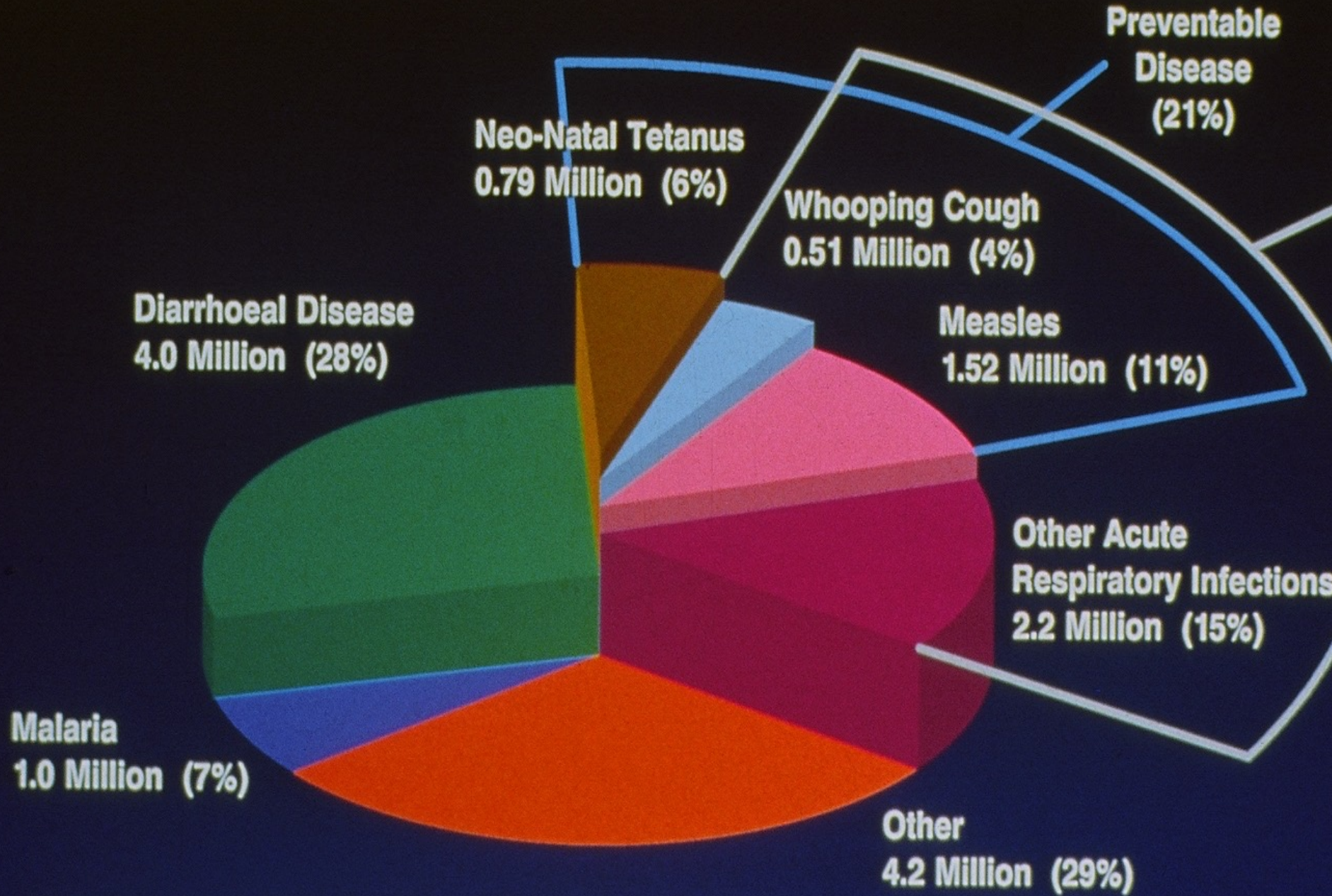
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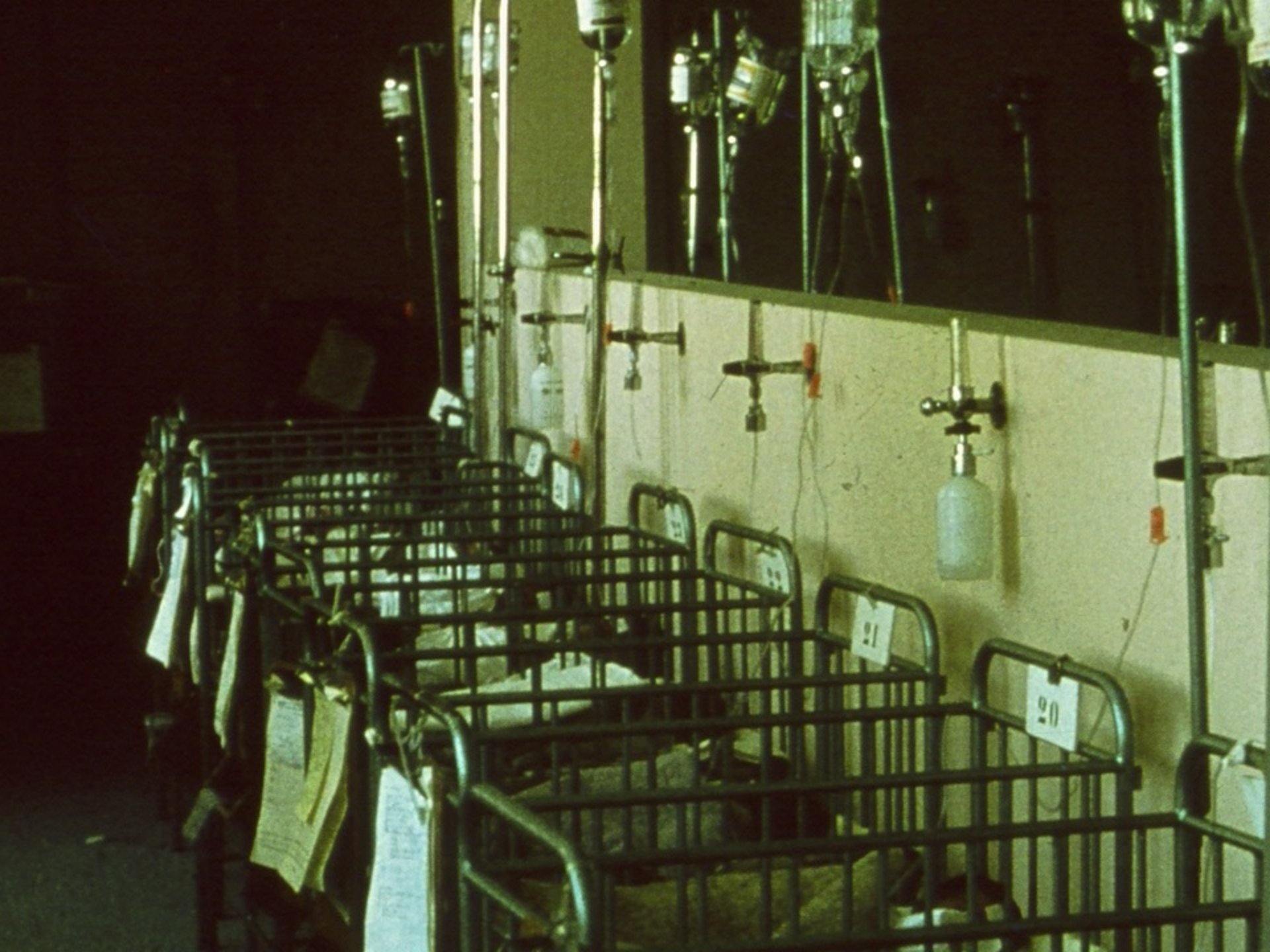






*** In Practice, Children Often Die of Multiple Causes**

Source: WHO and UNICEF Estimates









PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
IN THIS HOSPITAL WE TREAT FREE OF CHARGE ALL PATIENTS
WITH DIARRHEA AND STUDY HOW TO BETTER TREAT AND PREVENT
CHOLERA. ALL PATIENTS WILL TAKE PART IN THESE STUDIES
FOR THEIR OWN AND THEIR COUNTRYMEN'S BENEFIT.

Diarrhea Treatment Should Be.....

- Inexpensive
- Easy to use
- Deliverable by non-professionals
- Physiologically sound
- Effective
- Acceptable

Original ORS Solution Recommended as by WHO

- Sodium chloride-
3.5gm/l
- Sodium bicarbonate-
2.5gm/l
- Potassium chloride-
1.5gm/l
- Glucose-20gm/l
- Sodium-90mmol/l
- Chloride-20mmol/l
- Potassium-80mmol/l
- Bicarbonate-30
- Glucose-111mmol/l









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বাস্তবায়িত উদ্যোগে ব্যবস্থাপনা
 খাওয়ার শালাইন
 (ডাইরিয়ার চিকিৎসা)

উপাদান : খাবার লবণ ১'৭৫ গ্রাম
 পটাশিয়াম লবণ ০'৭৫ " "
 খাবার সোডা ১'২৫ " "
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 প্রস্তুত তারিখ

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The BRAC Oral Therapy Extension Program (OTEP)

- Over a 10-year period (1980-1990), 12 million mothers were taught in home to prepare ORS
- Knowledge was transmitted to mothers in the community by a female OTEP workers whose salary was based on what mothers learned
- Seven basic ideas were combined with active demonstration
- Knowledge has persisted in the population
- Bangladesh has the highest use rate of ORS

Flooding in Dhaka in 2009

- Severe flooding in Dhaka led to major cholera outbreaks in the city
- In 9 weeks period in July and August > 42,000 cholera patients were admitted to the icddr,b with no deaths from dehydration
- ORT was extensively used with family members participating in patient care

















Lessons from ORT Relevant to Teaching Global Health

- Cases are an excellent teaching tool for addressing global health issues
- Field related experiences should reinforce cases
- Cases are most effective if they deal with local issues but regional approach can be useful
- Cases should focus on assessment, cause, and mitigation and address solvable problems
- Multi and interdisciplinarity approaches are critical in case development and teaching
- Faculty need to be trained in case teaching

Cases—Present and Future

- Impact of flooding in Bangladesh esp. as a risk factor for certain diseases and service delivery (JPGSPH, Hanoi School of Public Health (HSPH))
- Reducing the transmission of Nipah virus (JPGSPH and HSPH) and the impact of climate on the transmission of malaria and other vector borne diseases.
- Air pollution and comorbidities (PHFI, CCDC)

Lessons from the ORT Story

- Researchers need to be embedded in areas where the problem occurs;
- Take research to the people and learn from them to promote evidence-based interventions;
- Context determines research questions and how success is measured
- Low-cost acceptable, attainable, and sustainable interventions are often better than high-tech solutions